Reasons to choose the Master of Science in Energy or Certificate in Energy at the Texas A&M Energy Institute
Reason #1:

Texas A&M is a World Leader
A University Among the Best

- Texas A&M opened in 1876 as the state's first public institution of higher learning. Today, it is a research-intensive flagship university dedicated to sending leaders out into the world prepared to take on the challenges of tomorrow.

- Texas A&M University ranks in the Top 20 of universities nationwide in total research expenditures.

- Texas A&M University holds membership in the prestigious Association of American Universities, one of only 62 institutions with this distinction.

- Texas A&M University was ranked 2nd in U.S by *The Wall Street Journal* among all universities, public and private, in a survey of top U.S. corporations, non-profits, and government agencies, based on graduates that recruiters prefer to hire.

- Texas A&M University has an endowment valued at more than $5 billion, which ranks fourth among U.S. public universities and 10th overall.
National Rankings

#2
2nd among public universities nationally in enrollment of National Merit Scholars
*National Merit Scholarship Corporation, 2014*

#2
2nd among public universities in "Best Value Schools" category and 21st overall among publics
*U.S. News & World Report, 2016*

#1
1st nationally in "Great Schools You Can Actually Get Into" list
*Money Magazine, 2015*

#3
3rd in nation among all universities based on "research, service, social mobility, and contributions to society"
*Washington Monthly, 2015*

#1
1st in Texas in 4, 5 and 6-year student graduation rates — both overall and for minorities
*Texas Higher Education Coordinating Board*

#1
1st in country in Best Colleges for Veterans
*Best Value Schools, 2014*
Texas A&M University is a campus with Aggie culture and Aggie Spirit.

“Being an Aggie doesn’t just define where you went to school, it defines who you are.”

**The Aggie Ring**  
The symbolic link to the Aggie network of former students.

**The Century Tree**  
A beautiful live oak and the site of countless Aggie marriage proposals and weddings.

**Reveille**  
The university’s official mascot
Reason #2:

An Internationally Recognized Research Institute in Energy
Texas A&M Energy Institute pursues and supports new approaches for multi-disciplinary energy research, education, and external partnerships.

These approaches cross departmental and college boundaries and address all facets of the energy landscape that naturally connect engineering, sciences, technologies, economics, law, and policy decisions.
World-class Research Community

The Texas A&M Energy Institute’s more than 240 faculty affiliates come from nine colleges and schools, more than 20 Texas A&M University departments, two Texas A&M University branch campuses, and two Texas A&M University System member institutions. The Texas A&M Energy Institute is also associated with a unique community of more than 450 doctoral students and postdoctoral fellows in the Texas A&M Energy Research Society.

Professor Christodoulos A. Floudas
Director, Texas A&M Energy Institute  Erle Nye '59 Chair Professor for Engineering Excellence

Professor Efstratios N. Pistikopoulos
Interim Co-Director and Deputy Director, Texas A&M Energy Institute
TEES Distinguished Research Professor
The Texas A&M Energy Institute’s more than 240 faculty affiliates come from nine colleges and schools, more than 20 Texas A&M University departments, two Texas A&M University branch campuses, and two Texas A&M University System member institutions. The Texas A&M Energy Institute is also associated with a unique community of more than 450 doctoral students and postdoctoral fellows in the Texas A&M Energy Research Society.
The Texas A&M Energy Institute focuses on establishing a vibrant interactive environment that brings together academia, government, and industry to discuss, address, and provide transformative solutions to energy challenges.
Reason #3:

A Program for Future Leaders In Energy
Educating Leaders in Energy

Designed to create the next generation of leaders in energy, this program will target both students and professionals who want to be educated on the high-impact and interdisciplinary facets of the energy research landscape through quantitative analytical methods and multi-scale systems based approaches.

“Programs like this simply do not exist outside Texas A&M. By bringing together partners from a broad spectrum—including industry, government and public policy arenas—and providing intensive interactions with these graduate students, we are helping create cutting-edge solutions to some of today’s most pressing, global challenges related to economic stability, national security and other critical areas.”

Texas A&M University President Michael K. Young
A Holistic View of Energy

Offers a holistic view of the entire energy research landscape, and introduces students and professionals to a broad spectrum of important energy issues from energy technologies based on fossil and non-fossil resources, to sustainable energy technologies, as well as their interactions with energy economics, entrepreneurship, law, and policy.
Truly Interdisciplinary Impact

- Seminars and lectures will be delivered by distinguished energy experts from academia, industry, and government.

- Distinguished faculty members are from the Bush School of Government and Public Service, College of Agriculture and Life Sciences, College of Architecture, College of Geosciences, College of Liberal Arts, Dwight Look College of Engineering, Mays Business School, and the School of Law.
Reason #4:  
Innovative Curriculum
“These programs will offer a holistic view of the entire energy research landscape, students and professionals will come together to discuss important energy challenges and opportunities, and interact with energy leaders from academia, industry and government. Our students will be the new generation of energy-educated students and professionals, broadly educated on all components of energy in ways that have never been done before.”

Professor Christodoulos A. Floudas (1959-2016)
Founder, Master of Science in Energy Program
Systematic and Unique Courses

- Environmental Issues of Energy Systems
- Reservoir Characterization and Modeling
- Bioenergy
- Energy Systems Engineering I
- Energy Systems Engineering II
- Introduction to Optimization
- Energy Accounting
- Beyond Science & Technology: The Role of Policy in the Future of Energy in the U.S.
- Introduction to U.S. Energy Law & Policy
- Economics of Energy
- Entrepreneurship in Energy
- Natural and Shale Gas Monetization: Technologies, Fundamentals, Economics, and Applications
- CO2 Sequestration
- Carbon Capture, Utilization, and Storage
Reason #5:
Flexible Module-based Program
An Innovative Program in Energy

The structure of the degree will be based on non-overlapping modules, a distinguished seminar series, and a research thesis (Track 1 only).

<table>
<thead>
<tr>
<th>Master of Science in Energy</th>
<th>Certificate in Energy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Program Duration</strong></td>
<td>10 months (September 1 – June 30)</td>
</tr>
<tr>
<td><strong>Requirements</strong></td>
<td><strong>Requirements</strong></td>
</tr>
<tr>
<td>• <strong>Track 1</strong>: 32 credits,</td>
<td>• 15 credits: 10 modules</td>
</tr>
<tr>
<td>including 16 modules, thesis and seminars.</td>
<td></td>
</tr>
<tr>
<td><em>(In-Residence Only)</em></td>
<td></td>
</tr>
<tr>
<td>• <strong>Track 2</strong>: 36.5 credits,</td>
<td></td>
</tr>
<tr>
<td>including 23 modules and seminars.</td>
<td></td>
</tr>
<tr>
<td><em>(In-Residence or by Distance)</em></td>
<td></td>
</tr>
</tbody>
</table>
Reason #6:

A Program focused on Transformation
Transformative Aims

The aims of the professional “Master of Science in Energy (MSE)” degree program are:

- Educate students/professionals with the broad spectrum of important energy issues, energy technologies based on fossil and non-fossil resources, sustainable energy technologies, and their interactions with energy economics, entrepreneurship, law, and policy.

- Enhance the quantitative skills and knowledge of students/professionals for the analysis, simulation, and optimization of energy systems, and prepare them for practical applications.

- Develop and enhance students’ skills for independent research in energy.

- Educate and train the new generation of “energy experts” to leading and impactful careers in the multi-faceted energy industry, the energy business domain, the law sector, the public policy sector, and the government.

- Integrate and synergize educational efforts in energy from all parts of Texas A&M University that include (a) the College of Agriculture and Life Sciences; (b) the College of Engineering, (c) the College of Geosciences; (d) the College of Sciences; (e) the Bush School of Government and Public Policy; (f) the Mays Business School; (g) the College of Liberal Arts; and (h) the School of Law.
Reason #7:
Diverse Career Opportunities in Energy
The United States Department of Labor identifies Energy as a High Growth Industry, noting that many companies prefer to hire individuals with a master’s degree for professional jobs.

A 2013 survey completed by the Association of Energy Engineers, Energy Management Jobs Report: Survey of the Energy Industry, reports that 66.9% of those responding believe that a shortage of energy management professionals exists and 60.4% believe that a shortage of qualified professionals in the energy efficiency and renewal energy field will exist within the next five years.

The Master of Science in Energy (MSE) and Certificate in Energy (CE) provide the interdisciplinary education that will fill a gap in available educational opportunities and provide employers with employees possessing the skill sets needed.
Potential Career Paths

Students will have the opportunity to secure a place among the next generation of leaders in energy – those who will:

- Advance technology and management in industry, non-profits, government, and academia,

- Become and support innovators and entrepreneurs in the energy sector,

- Address critical and interdisciplinary energy management issues in science, technology, the environment, the economy, policy, and business,

- Contribute to data analysis, modeling and computer solutions for energy optimization, and

- Pursue doctoral degree or other advanced degrees in energy-related areas.
Reason #8:

Texas: A State With Opportunities
Texas: The Right Conditions for Success

- **Strong Economy:** Texas is the fastest growing state in U.S., ranking second in the nation’s GDP. The state is home to well developed industrial, agriculture, energy, and aerospace industries and is a dominant energy-producing state, with oil production accounting for one-third of the U.S. total.
- **More employment opportunities:** Crowned “The Great American Job Machine,” Texas has created almost one-third of all the nation’s new jobs in the recent years.
- **Low Cost of Living:** Texas is famous for having no personal income tax and no corporate income tax. It has a relatively low cost of living, including consumer prices, utilities and transport costs, and housing prices.
- **Good Education System:** Texas also has strong education systems. It is home to many world-class colleges including the University of Texas, Texas A&M, Baylor, and Rice University.
Reason #9:
A Welcoming and Pleasant Community
Bryan and College Station

Texas A&M is located in the City of College Station and near the City of Bryan. College Station is a great college town and is rated among the “best places to live” and is one of the most educated cities in America.

- **Good Location:** College Station is located within the “Texas Triangle,” and is almost equidistant to three major cities: Austin, Dallas, and Houston. These cities are only a 1-2 hour drive away.

- **Lovely Countryside:** The rolling hills, rivers, and forests surrounding the city provides an attractive countryside landscape with farms and ranches.

- **Safe Neighborhoods and a Friendly Community:** College Station is a quiet and peaceful city with low crime rates. People are educated and friendly with warm smiles and an enthusiastic “howdy” greeting.

- **Child-Friendly Environment:** College Station is a great place to raise a family, with outstanding public schools, excellent sports facilities, and rich community activities.
Reason #10: More Reasons to be at Texas A&M
A Friendly Environment

- **The friendliest campus in the country:** People greet each other with “howdy” as they walk on campus and everyone is generous with their time and energy in support of each other and the traditions of the campus.

- **Presidential Prestige:** The George Bush Presidential Library is located on the campus. Former U.S. President George H. W. and First Lady Barbara Bush call College Station their second home and are often seen around campus.
Welcome to Texas A&M University!